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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/554,197

Applicant(s)

SAITO ET AL.

Examiner

Ninh V. Le

Art Unit

4151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____
- Paper No(s)/Mail Date 10/24/05, 9/4/07, 3/11/08

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because abstract contain more than one paragraph and more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16 recites the limitation "resin pit" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Libres et al. European Patent Publication EP0904923A1 (hereinafter Libres '923) (already of record).

6. **Regarding claim 1, Libres '923 discloses** a molding method using ultrasonic vibration in which a resin material in a molten state is filled into a cavity of a mold and cooled down to obtain a product in a predetermined shape, the method being characterized by:

preparing the mold having a product cavity to mold the product, a dummy cavity to mold a dummy product, and a runner by which the product cavity and the dummy cavity are connected (Figure 1 and Figure 2);

filling (communicates, Column 4 Line 23-23) the resin material (non-solidified molding material 60, Column 4 Line 23) into the product cavity (mold cavity 28, Column 4 Line 24) and supplying the resin material in the molten state to at least part of the dummy cavity (molding material (60) is disposed within pot (22), Column 3 Line 56); and applying the ultrasonic vibration to the resin material in the dummy cavity at predetermined timing (wave energy (72)...applied at any time during molding process, Figure 4, Column 5 Line 39-41).

It is the Examiner's position to give no weight to the word "predetermined" as stated in claim 1. Note, Libres '923 discloses a product cavity as a mold cavity (numbering element 28), a dummy cavity as a pot (numbering element 22), and a runner system (numbering element 24) as indicated in Figure 1 and Figure 2. Also note, it is the Examiner's position that a dummy cavity is a simulation cavity of the final cavity. As disclosed by Libres '923, pot (numbering element 22) can be any shape or size (Column 3 Line 52). Therefore, pot (numbering element 22) can take the shape and size of the mold cavity (numbering element 28) and performs the function of a dummy cavity.

Although Libres '923 is silent to the predetermined timing at which the ultrasonic vibration (numbering element 72) is applied to the resin material, the timing of the ultrasonic vibration is a process variable that depends on conditions such as the rate at which the resin material is injected into the mold. Therefore, the timing of the ultrasonic vibration application is a variable for optimizing the effect of the ultrasonic vibration on the resin material in the dummy cavity.

7. **Regarding claim 2, Libres '923 discloses** preparing the mold having a plurality of product cavities to mold the products, a runner by which the product cavities are connected to each other, and a resin pit provided at a halfway part of the runner (Figure 2); supplying the resin material to the resin pit (molding material (60) is disposed within pot (22), Column 3 Line 56) and filling (communicates, Column 4 Line 22-23) the resin material (non-solidified molding material (60), Column 4 Line 23) into all of the plurality of product cavities (mold cavity (28), Figure 2, Column 4 line 24); and applying the ultrasonic vibration to the resin material in the resin pit at predetermined timing (wave energy (72)...applied at any time during molding process, Figure 4, Column 5 Line 39-41).

As stated in the aforementioned rejection, it is the Examiner's position to give no weight to the word "predetermined" as stated in claim 2.

8. **Regarding claim 3, Libres '923 discloses** the predetermined timing is after start of supply of the resin material to at least part of the dummy cavity or the resin pit

and while the resin material in the runner has a predetermined viscosity (wave energy (72)...applied at any time during molding process, Figure 4, Column 5 Line 39-41).

As stated in the aforementioned rejection, it is the Examiner's position to give no weight to the word "predetermined" as stated in claim 3.

9. **Regarding claim 4, Libres '923 discloses** the ultrasonic vibration (wave energy 72, Column 6 Line 40) is applied while a compressed state (packing phase, Column 6 Line 41) is maintained after the resin material (non-solidified molding material (60), Column 6 Line 15-16) is filled into the product cavity (flows...into mold cavity (28), Column 6 Line 16-17) and compressed (compressive pressure, Column 6 Line 35-36).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Libres et al. European Patent Publication EP0904923A1 (hereinafter Libres '923) (already of record) as applied to claim 1 above, in view of Nishimoto US Patent 6767482B2 (hereinafter Nishimoto '482).

14. **From the aforementioned rejection, Libres '923 teaches** all of the limitation of claim 1.

15. **However, Libres '923 failed to teach** the amount of resin material flowing into the product cavity from the dummy cavity in the range of 0.1% by volume to 5% by volume of the resin material filled into the product cavity, a nozzle supplying the resin material and the nozzle closing after resin has been filled, and the optical and spectacle lenses obtained.

16. **In the same field of endeavor pertaining to injection molding, Nishimoto '482 discloses in regards to claim 5,** the ultrasonic vibration is applied so that an amount of the resin material flowing into the product cavity from the dummy cavity and air gaps other than the product cavity is in a range of 0.1% by volume to 5% by volume of the resin material filled into the product cavity (percentage can be selectively determined in accordance of the volume of the cavity (3), Column 14 Line 52-53). Although Nishimoto '482 is silent to the range of 0.1% by volume to 5% by volume of the resin material filled into the cavity, the amount of flow is based on the volume of the cavity, the type of resin material, and the property of the desired lens.

17. **Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Libres '923 with that of Nishimoto '482** to utilize the ultrasonic vibration disclosed by Libres '923 to allow for the resin material from the dummy cavity to the product cavity to flow within the range of 0.1% by volume to 5% by volume of the resin material filled into the product cavity as disclosed by Nishimoto '482 for the benefit of obtaining an optimal optical lens.

18. **Regarding claim 6, Nishimoto '482 discloses** the ultrasonic vibration is applied immediately after the filling of the resin material is started (molten resin is injected and filled into the cavity, Column 3 Line 22-23) and until a gate in communication with the product cavity is sealed (gate is closed in synchronization with...the cavity, Column 3 Line 24-25).

19. **Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Libres '923**

with that of Nishimoto '482 to apply the ultrasonic vibration disclosed by Libres '923 after the resin material is filled in the product cavity and the gate is sealed as disclosed by Nishimoto '482 for preventing the back flow of the molten resin in the product cavity.

20. **Regarding claim 7, Nishimoto '482 discloses** a nozzle of a molding machine to supply the resin material to the mold is closed immediately after the filling of the resin material is completed (Figure 15).

21. **Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Libres '923 with that of Nishimoto '482** to combine the molding cavities and supersonic vibration application disclosed by Libres '923 with the nozzle for injecting resin material and closing the nozzle immediately after the filling of the resin material has been completed as disclosed by Nishimoto '482 for the benefit of maximizing the suppression of residual strain and to optimize the power of the lens due to the increased pressure after closing of the nozzle.

22. **Regarding claim 8, Nishimoto '482 discloses** the product is an optical lens (spectacle lenses, Figure 17 and Figure 18, Column 13 Line 14).

It is the Examiner's position that a spectacle lens is a type of optical lens.

23. **It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Libres '923 with that of Nishimoto '482** to modify the molding cavities and supersonic vibration application as

disclosed by Libres '923 with the mold cavities of Nishimoto '482 to obtain an optimal optical lens.

24. **Regarding claim 9, Nishimoto '482 discloses** the optical lens is a spectacle lens (spectacle lenses, Figure 17 and Figure 18, Column 13 Line 14), and a step of subjecting the obtained spectacle lens to a surface treatment (hardwearing hard coating fluid, Column 13 Line 21) is further added.

25. **It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Libres '923 with that of Nishimoto '482** and to modify the molding cavities and supersonic vibration application as disclosed by Libres '923 with the mold cavities and surface treatment as disclosed by Nishimoto '482 for the benefit of optimizing the physical and chemical durability of the spectacle lens.

26. **Regarding claim 10, Nishimoto '482 discloses** an optical lens (spectacle lenses, Figure 17 and Figure 18, Column 13 Line 14).

As stated in the aforementioned rejection, spectacle lens is a type of optical lens.

27. Claims 11-16,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Libres et al. European Patent Publication EP0904923A1 (hereinafter Libres '923) (already of record) in view of Sato Atsushi et al. Japanese Patent Publication JP11-262938 (hereinafter Sato '938) (already of record).

Examiner wishes to point out to applicant that claims 11-16,18 are directed towards an apparatus and as such will be examined under such conditions. The material worked

upon or the processes of using the apparatus are viewed as recitation of intended use and are given no patentable weight (Please see MPEP 2114 R1-2115 R2 for further details).

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Regarding claims 11-16,18, applicant has attempted to invoke 35 U.S.C. 112, sixth paragraph. However, the specification does not set forth the meaning as required. Therefore, 35 U.S.C. 112, sixth paragraph interpretation is not applicable and the claims will be given the broadest most reasonable interpretation.

28. **Regarding claim 11, Libres '923 discloses** the molding machine in which a resin material is filled into a cavity formed in a mold and compressed to mold a product in a predetermined shape, the molding machine being characterized by comprising: the mold having a product cavity to mold the product, a dummy cavity to mold a dummy product, and a runner by which the product cavity and the dummy cavity are connected (Figure 1 and Figure 2).

Note, Libres '923 discloses a product cavity as a mold cavity (numbering element 28), a dummy cavity as a pot (numbering element 22), and a runner system (numbering element 24) as indicated in Figure 1 and Figure 2. Also note, it is the Examiner's position that a dummy cavity is a simulation cavity of the final cavity. As disclosed by

Libres '923, pot (numbering element 22) can be any shape or size (Column 3 Line 52). Therefore, pot (numbering element 22) can take the shape and size of the mold cavity (numbering element 28) and performs the function of a dummy cavity.

29. **However, Libres '923 failed to teach** the ultrasonic wave application means and the control means.

30. **In the same field of endeavor pertaining to injection molding, Sato '938 teaches in regards to claim 11,** ultrasonic wave application means for applying ultrasonic vibration to the resin material in the dummy cavity; and control means for controlling application timing of the ultrasonic vibration by the ultrasonic wave application means.

Examiner noted that applicant **properly invoked means-plus-function** 112th, sixth paragraph in claim 11 for **ultrasonic wave application means**. Thus, Page 12 Line 20-22 of **applicant's specification identifies** this means as "ultrasonic oscillator which applies the ultrasonic vibration to the resin material in the dummy cavity". With respect to this limitation, **Sato '938 discloses** "ultrasonic vibrator...is changed by controlling high-frequency power of said ultrasonic wave oscillator" (Page 2 Paragraph [0009]).

With respect to **control means** in claim 11, Examiner noted that applicant **improperly invoked means-plus-function** 112th, sixth paragraph. Therefore, the broadest most reasonable interpretation will be given as previously stated. In that respect, **Sato '938 discloses** "a timer which incorporated the signal...from the ultrasonic wave oscillator" on Page 7 Paragraph [0032].

31. **It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Libres '923 with that of Sato '938** to combine the molding cavities as disclosed by Libres '923 with the ultrasonic wave oscillator and timer as disclosed by Sato '938 for the benefit of improving transferability and to reduce internal strain in resin material during molding to obtain optical lens that have high accuracy and superior quality.

It is the Examiner's position that the material worked upon or the processes of using the apparatus are viewed as recitation of intended use and are given no patentable weight (Please see MPEP 2114 R1-2115 R2 for further details).

32. **Regarding claim 12, Libres '923 discloses** the mold having a plurality of product cavities to mold the products, a runner by which the product cavities are connected to each other, and a resin pit (pot (22) stores molding material (60), Column 3 Line 49-50) provided at a halfway part of the runner (Figure 2);

It is Examiner's position that a resin pit serves as a storing area for resin material which is within the scope of claim 12. Libres '923 discloses a pot (22) which stores the molding material for use in the mold system (20) (Column 3 Line 49-50). Therefore, the pot (22) is equivalent to a resin pit as stated in claim 12.

33. **However, Libres '923 failed to teach** the ultrasonic wave application means and the control means.

34. **In the same field of endeavor pertaining to injection molding, Sato '938 teaches in regards to claim 12, ultrasonic wave application means for applying ultrasonic vibration to the resin material in the resin pit; and control means for controlling application timing of the ultrasonic vibration by the ultrasonic wave application means.**

Examiner noted that the applicant **properly invoked means-plus-function** 112th, sixth paragraph in claim 12 for **ultrasonic wave application means**. Thus, Page 12 Line 20-22 of **applicant's specification identifies** this means as "ultrasonic oscillator which applies the ultrasonic vibration to the resin material in the dummy cavity". With respect to this limitation, **Sato '938 discloses** "ultrasonic vibrator...is changed by controlling high-frequency power of said ultrasonic wave oscillator" (Page 2 Paragraph [0009]).

With respect to **control means** in claim 12, Examiner noted that the applicant **improperly invoked means-plus-function** 112th, sixth paragraph. Therefore, the broadest most reasonable interpretation will be given as previously stated. In that respect, **Sato '938 disclosed** "a timer which incorporated the signal...from the ultrasonic wave oscillator" on Page 7 Paragraph [0032].

35. **Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Libres '923 with that of Sato '938 to combine the molding cavities and resin pit as disclosed by Libres '923 with the ultrasonic wave oscillator and timer as disclosed by Sato '938 for the benefit of improving transferability and reduce internal strain in resin material during molding to obtain optical lens that have high accuracy and superior quality.**

It is the Examiner's position that the material worked upon or the processes of using the apparatus are viewed as recitation of intended use and are given no patentable weight (Please see MPEP 2114 R1-2115 R2 for further details).

36. **Regarding claims 13-14 as applied to claim 11, Sato '938 discloses** timing when the control means (timer which incorporated the signal...from the ultrasonic wave oscillator, Page 7 Paragraph [0032]) applies the ultrasonic vibration is after start of supply of the resin material to at least part of the dummy cavity or the resin pit and while the resin material in the runner has a predetermined viscosity and the timing when the control means (timer which incorporated the signal...from the ultrasonic wave oscillator, Page 7 Paragraph [0032]) applies the ultrasonic vibration is while a compressed state is maintained after the resin material is filled into the product cavity and compressed.

Examiner noted that applicant **improperly invoked means-plus-function** 112th, sixth paragraph for **control means** in claims 13-14. As stated in the aforementioned rejection, **controls means** will be given the broadest most reasonable interpretation.

Also note, it is Examiner's position that the material worked upon or the processes of using the apparatus are viewed as recitation of intended use and are given no patentable weight (Please see MPEP 2114 R1-2115 R2 for further details).

37. **Regarding claim 15 as applied to claim 11, Libres '923 discloses** the mold has a sprue in communication with the runner in addition to the runner (transfer system (25), Abstract).

It is the Examiner's position that a sprue is a pathway in injection molding between a nozzle and a cavity which is within the scope of claim 15. In that respect, a sprue is the equivalent of the transfer system (25) as disclosed by Libres '923 which transfer molten molding material into the mold cavity (Page 2 Paragraph [0009]).

38. **Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Libres '923 with that of Sato '938** to combine the molding cavities, resin pit, and the transfer system as disclosed by Libres '923 with the ultrasonic wave oscillator and timer as disclosed by Sato '938 to provide a means for transferring of molten resin material from the dummy cavity to the product cavity.

Also note, it is the Examiner's position that the material worked upon or the processes of using the apparatus are viewed as recitation of intended use and are given no patentable weight (Please see MPEP 2114 R1-2115 R2 for further details).

39. **Regarding claim 16, Libres '923 discloses as applied to claim 11,** the resin pit located at a midpoint of the runner (Figure 1 and Figure 2).

40. **Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Libres '923 with that of Sato '938** to combine the molding cavities, the transfer system, and a resin pit which at midpoint of the runner system as disclosed by Libres '923 with the ultrasonic wave oscillator and timer as disclosed by Sato '938 to reduce the transfer time of the molten resin material from the resin pit to the product cavity.

As stated in the aforementioned rejection, Libres '923 discloses a resin pit as a pot (22) as indicated in Figure 1 and Figure 2. Also disclosed by Libres '923 in Figure 1 and Figure 2, pot (22) is located in the middle of runner system (24).

41. **Regarding claim 18 as applied to claim 12, Sato '938 discloses** timing when the control means (timer which incorporated the signal...from the ultrasonic wave oscillator, Page 7 Paragraph [0032]) applies the ultrasonic vibration is after start of supply of the resin material to at least part of the dummy cavity or the resin pit and while the resin material in the runner has a predetermined viscosity.

Examiner noted that applicant **improperly invoked means-plus-function** 112th, sixth paragraph for **control means** in claim 18. As stated in the aforementioned rejection, **controls means** will be given the broadest most reasonable interpretation.

Also note, it is Examiner's position that the material worked upon or the processes of using the apparatus are viewed as recitation of intended use and are given no patentable weight (Please see MPEP 2114 R1-2115 R2 for further details).

42. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Libres et al. European Patent Publication EP0904923A1 (hereinafter Libres '923) (already of record) in view of Sato Atsushi et al. Japanese Patent Publication JP11-262938 (hereinafter Sato '938) (already of record) as applied to claim 11 above, in further view of Nishimoto US Patent 6767482B2 (hereinafter Nishimoto '482).

43. From the aforementioned rejections, Libres '923 and Sato '938 hypothetically relates to the disclosure of a mold with cavities and an ultrasonic wave application means with a control means.

39. **However, the hypothetical teaching combination of Libres'923 and Sato '938 failed to teach** the optical lens.

44. **In the same field of endeavor pertaining to injection molding, Nishimoto '482 discloses in regards to claim 17,** the product is an optical lens (Figure 17 and Figure 18).

45. **Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hypothetical teaching combination of Libres '923 and Sato '938 with that of Nishimoto '482** to modify the molding cavities and ultrasonic wave application mean with timer as disclosed by the hypothetical teaching combination of Libres '923 and Sato '938 to obtain an optimal optical lens as disclosed by Nishimoto '482 that has high accuracy and superior quality.

Conclusion

46. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshikawa et al. US Patent 6646807B2, Saito et al. US Patent 5972252, and Harry et al. US Patent 3396214.

47. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ninh V. Le whose telephone number is (571)270-3828. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on (571)272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NVL

***/Angela Ortiz/
Supervisory Patent Examiner, Art Unit 4151***